

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/547,673	04/12/2000	Atsushi Tomita	44084-449	5765

20277 7590 03/20/2006

MCDERMOTT WILL & EMERY LLP
600 13TH STREET, N.W.
WASHINGTON, DC 20005-3096

EXAMINER	
PRIETO, BEATRIZ	

ART UNIT	PAPER NUMBER
2142	

DATE MAILED: 03/20/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/547,673	TOMITA, ATSUSHI	
	Examiner	Art Unit	
	Prieto B.	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *02/09/2006*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *11,12,15,16,19 and 21-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *11,12,15,16,19 and 21-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *12 February 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 2/09/06 has been entered. Claims 11-12, 15-16, 19 and 21-30 have been examined.

2. Claim interpretation: according to applicant's invention, warning transmission determination, involves an element data, e.g. the count value of the jam counter and the count value of the PM counter are compared with predetermined threshold values. Based on the result of the comparison, it is determined whether to transmit warning data or warning cancel data to the center or not (p. 14, line 24 to p. 15, line 4).

Thereby, claim clause "a threshold value storing unit for holding threshold value information deciding a period for which the apparatus management data is valid", will be interpreted as meaning, a value *used for* deciding when a condition is met associated with said value.

As previously stated, the terms "validity/invalidity" broadly speaking, relate to the comparison between a current date and time and a predetermined or set date and time, thereby a message or data is characterized as "valid" if set date and time is equal or greater than the current time or is "invalid" if set date and time is not equal/greater than the current time (specs: page 20, lines 17-20 and Fig. 13).

Claim Rejection under 103

3. Quotation of 35 U.S.C. §103(a) which forms the basis for all obviousness rejections set forth in this Office action may be found in previous office action.

4. Claims 11-15, 19-20 and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarr, et. el. (Tarr) U.S. Patent No. 5,184,179 in view of Nobuhisa, S. (JP 7115437)

Regarding claim 15, Tarr teaches substantial features of the invention as claimed, teaching

a management system (Figs. 3-4) that manages apparatuses (52 of Fig. 3) connected to a plurality of "apparatus management" devices, i.e. processor (16 of Fig. 1 or 60 of Fig. 3), by transmitting and receiving a information including "apparatus management" data between a "centralized management"

device (103 of Fig. 4) and the apparatus management devices via a communication network, (Tarr: receiving/transmitting by control computer (16) see col 3/lines 54-58 and col 9/lines 58-col 10/line 4, transmitting over a local area network to central station see col 5/lines 8-13, data transfer in discrete bytes, i.e. packets see col 3/lines 59-60) wherein said centralized management system comprises:

communication network for sending out to the communication network a packet being addresses to a specified apparatus management device and taking in a packet from the communication network addressed to itself (Tarr: sending out packets addressed to processor see col 3/lines 54-56 and 7/lines 20-26, sending to respective processor see col 9/lines 31-21, and taking in see col 7/lines 28-31, centralized station having a modem, i.e. for taking in see col 5/lines 40-43 and sending out see col 6/lines 27-38), wherein said apparatus management devices each comprises:

first communication means (20) for transmitting and receiving the apparatus management data to and from the apparatus (Tarr: receive/transmit to/from copier see col 7/lines 13-20);

second communication means (42) for sending out a packet addressed to said centralized management device through the communication network, and taking in a packet from the communication network addressed to itself (Tarr: sending out by transceiver 42 of processor (16) to central station see col 7/lines 28-38, taking in data addressed to itself, i.e. answering see col 5/lines 40-43);

clock means (30) for providing current time (Tarr: col 6/lines 43-46); and

permitting transmission of the apparatus management data to the apparatus connected to said apparatus management device on condition based on the current time obtained from an internal clock ("clock means for providing current time") (col 6/lines 39-68); although Tarr permitting transmission of the apparatus management data to the apparatus connected to said apparatus management device based on said provided current time;

Tarr does not explicitly teach where said packets include expiration information (e.g. date and/or time) upon which validity of data is determined;

Nobushisa teaches when transmitting a packet inserting time stamp indicating the transmission of the packet upon which validity of data is determined upon reception thereof by comparing the present time and a predetermined time (abstract and p. 2 and 3), including transmitting data (22) in a packet consisting of a header (21), transmission data (22), and time stamp (23) (p. 2).

It would have been obvious to one ordinary skilled in the art at the time the invention was to combine the teachings of Tarr's for triggering data transmission via the network on a time event basis including the transmission of status and billing information with the teachings of Nobushisa for performing resending control of delayed packets due to congestion of the communication line. One would

be motivated to enable Tarr's system to resend packets which are delayed, or lost, because in doing so packets can be resend without causing a burden to the communication line and preventing the resending of useless packets and guaranteeing the integrity of the packets, as suggested by Nobuhisa.

Regarding claim 11, comprising limitations substantially the same as those discussed on claim 15, same rationale of rejection is applicable.

Tarr teaches a control device (16) configured to transmitted and receive from a managed apparatus (52) from a plurality of managed apparatuses apparatus management data by a first communicating unit (20) (col 7/lines 13-25, col 3/lines 54-58 and col 9/lines 58- to col 10/line 4), and a packet addressed to a centralized management device (103) is sent out over a communication network (col 5/lines 8-13, 7/lines 28-38) and a packet from the communication network addressed to itself is taken in by a second communicating unit (42)(col 5/lines 8-13, data transfer in discrete bytes, i.e. packets see col 3/lines 59-60, taking data addressed to itself, i.e. answering col 5/lines 40-43), said control device comprising:

a clock for providing current time (col 6/lines 43-46);

an analyzing unit (24) comprising a program for analyzing the packet taken in by said second communicating unit (col 39-51, 55-62);

a threshold value storing unit for holding threshold value information used for determining a when the apparatus management data is valid (i.e. predetermined period of time or predetermined count value see col 6/lines 39-65);

wherein said expiration time managing unit determines whether or not the current time is not past the expiration time based on a transmission time included in the packet analyzed by said analyzing unit, the threshold value information held by the threshold value storing unit and the current time obtained from said clock (col 6/lines 39-68).

Regarding claim 12, threshold value storing unit holds threshold value information used for determining "an expiration" time associated with each apparatus management data (i.e. a predetermined interval, *calendar events, i.e. predetermined time have expired, see* col 1/lines 14-22, transferring the count values to the central processor are at predetermined intervals, see col 1/lines 23-44, determining when a predetermined interval has occurred, i.e. expired, or a predetermined real time interval see col 3/lines 33-40).

Claims 13 - 14 (Cancelled)

Regarding claim 16, this claim comprises limitations substantially the same as those discussed on claims 11 and 15, same rationale of rejection is applicable.

Claims 17 & 18 (Cancelled)

Regarding claim 19, this claim comprises limitations discussed on claims 11 and 15, same rationale of rejection is applicable;

receiving a instruction or rule that triggers an action "command" from a management device via a communication network (Tarr: col 6/lines 27-28, col 5/lines 31-36 and col 3/line 47-49); determining whether or not a "command" has expired (Nobushisa: abstract and p. 2-4).

Claim 20 (Cancelled)

Regarding claim 20, sending information to the management device via the communication network when the command has expired (Tarr: col 6/lines 39-54).

Regarding claim 21, not controlling the management device based on the outcome from the decision unit. Nobuhisa as applied on claim 15, same rationale of rejection is applicable.

Regarding claim 22, command to request an operation of the apparatus ("image forming apparatus") (Tarr: col 6/lines 27-28, col 5/lines 31-36 and col 3/line 47-49).

Regarding claim 23, this claim comprises limitations substantially the same as those discussed on claims 11 and 15-16, same rationale of rejection is applicable

Regarding claim 24, this claim comprises limitations functionally the same as those discussed on claims 11-12, 15-16 and 19, same rationale of rejection is applicable, wherein the control device of claim 11, is now called "terminal device", the centralized management device of claim 11, is now called "center device" and the "apparatus management devices of claim 15 is now called terminal relay device between the center device and the managed devices.

Regarding claims 25-30, these claims comprises limitations functionally the same as those discussed on claims 11-12, 15-16 and 19, same rationale of rejection is applicable.

5. Claims 11, 15 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tarr, et. el. (Tarr) U.S. Patent No. 5,184,179 in view of Cawley (US 5,361,334)

Regarding claims 11, 15 and 19, Tarr teaches substantial features of the invention as claimed, teaching

a management system (Figs. 3-4) that manages apparatuses (52 of Fig. 3) connected to a plurality of "apparatus management" devices, i.e. processor (16 of Fig. 1 or 60 of Fig. 3), by transmitting and receiving a information including "apparatus management" data between a "centralized management" device (103 of Fig. 4) and the apparatus management devices via a communication network, (Tarr: receiving/transmitting by control computer (16) see col 3/lines 54-58 and col 9/lines 58-col 10/line 4, transmitting over a local area network to central station see col 5/lines 8-13, data transfer in discrete bytes, i.e. packets see col 3/lines 59-60) wherein said centralized management system comprises:

communication network for sending out to the communication network a packet being addresses to a specified apparatus management device and taking in a packet from the communication network addressed to itself (Tarr: sending out packets addressed to processor see col 3/lines 54-56 and 7/lines 20-26, sending to respective processor see col 9/lines 31-21, and taking in see col 7/lines 28-31, centralized station having a modem, i.e. for taking in see col 5/lines 40-43 and sending out see col 6/lines 27-38), wherein said apparatus management devices each comprises:

first communication means (20) for transmitting and receiving the apparatus management data to and from the apparatus (Tarr: receive/transmit to/from copier see col 7/lines 13-20);

second communication means (42) for sending out a packet addressed to said centralized management device through the communication network, and taking in a packet from the communication network addressed to itself (Tarr: sending out by transceiver 42 of processor (16) to central station see col 7/lines 28-38, taking in data addressed to itself, i.e. answering see col 5/lines 40-43);

clock means (30) for providing current time (Tarr: col 6/lines 43-46); and

permitting transmission of the apparatus management data to the apparatus connected to said apparatus management device on condition based on the current time obtained from an internal clock ("clock means for providing current time") (col 6/lines 39-68); although Tarr permitting transmission of the apparatus management data to the apparatus connected to said apparatus management device based on said provided current time;

Tarr does not explicitly teach where said packets include expiration information (e.g. date and/or time) upon which validity of data is determined;

Cawley teaches a method for detecting and disposing of corrupted "ghost" packets (column 9, lines 35-55) by time-stamping each packet on transmission from a node with an expiry time having a

value longer than the maximum possible transit time, where upon receipt of the packet by a node, the timestamp is compared with the current time is greater than or equal to the expiry time the packet is destroyed (column 9, line 67-column 10, line 15).

It would have been obvious to one ordinary skilled in the art at the time the invention was to combine the teachings of Tarr's for transmitting status and billing information to include Cawley teachings for discarding corrupted data. One would be motivated to enable Tarr's system to destroy packets having information at the head of a packet is corrupted, particularly where node failure occurs on nodes between the sending and destination nodes, further enhanced with retry mechanisms for obtaining non-corrupted packets by retrying at least once and preferably more times which may be done at a microcode or a software level and/or take whatever action is appropriate for reporting that a node has died and trigger recovery actions such as restarting tasks from their latest checkpoint, as suggested by Cawley.

Response to Arguments

6. Regarding claims 15-14, 11-13, 7-9, 4-15, 19-20 and 22 rejected under 103 as being unpatentable over Tarr in view of RD, have been considered but are moot in view of the new ground(s) of rejection.

Citation of Pertinent Art:

7. The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Copies of Non-Patent Literature documents cited will be provided as set forth in MPEP§ 707.05(a):

WO 95/26596

Wasilewski et. al. teaches inserting a timestamp value in a data packet before transmission, at the transmission site, where the timestamp is used at a receiving site to determine transmission delays.

US 6,104,712

Robert et. al. teaches a packet containing a timestamp field, wherein if the packet type is a data packet , the current time to the timestamp in the timestamp field is compared to determine how old the packet is, and if the packet is stale (e.g. older than thirty minutes) it is deleted.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prieto, B. whose telephone number is (571) 272-3902. The Examiner can normally be reached on Monday-Friday from 6:00 to 3:30 p.m. If attempts to reach the examiner by telephone are unsuccessful, the Examiner's Supervisor, Andrew T. Caldwell can be reached at (571) 272-3868. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3800/4700.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system, status information for published application may be obtained from either Private or Public PAIR, for unpublished application Private PAIR only (see http://pair-direct.uspto.gov or the Electronic Business Center at 866-217-9197 (toll-free).

Any response to this action should be mailed to:
Commissioner of Patents and Trademarks
P.O. Box 1450
Alexandria, VA 22313-1450

Hand carried or delivered to:
Customer Service Window located at the Randolph Bldg.
401 Dulany St.
Alexandria, VA 22314

Faxed to the Central Fax Office:
(571) 273-8300 (New Central Fax No.)

Or Telephone:

(571) 272-2100 for TC 2100 Customer Service Office.

B. Prieto
Primary Examiner
TC 2100
March 17, 2006

BEATRIZ PRIETO
PRIMARY EXAMINER